

## Effective of Interest Rates Changes on Profitability of Banking Industry in India (An Empirical Research on the Profitability Performance of Nationalized Banks in India)

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**Abstract** Interest Rate Risk Represents One Of The Key Forms Of Financial Risk Faced By Banks It Has Given Rise To An Extensive Body Of Search Mainly Focused On The Estimation Of Sensitive Of Banks Stock Returns To Changes In Interest Rates Profitability Is A Major Concern For The Banking Sector The Public Sector Commercial Banks Are The Back Bone Of Indian Economy And It Supports Many Ways Many Sectors Like Agriculture, Small Business, Small Industries, Big Industries, Directly In Providing The Finance Every Research Has Its On Base And The Outcomes Are Based On The Type Of Study In The Process Of Review Of Literature In Books , Journals, Annual Reports, Websites Of Banking Sector It Has Been Observed That There Are Many Deficiencies In The Performance Of The Banking Sector . It Is Expected That Banks Have To Monitor, Maintain, And Manage Their Assets And Liabilities Portfolios In A Systematic Manner Taking In To An Account The Various Risk Involved In These Areas. Profit And Loss Account And Balance Sheet Risk Of A Bank Can Have A Significance Influence On Interest Rate Risk The Rise And Fall In The Interest Rate Has Great Impact On The Profitability And Return On Equity And Return On Assets. The Present Research Work Focuses On The Impact Of Interest Rate Changes On Profitability On The Banking Industry In India The Study Coves A Period Of 30 Years And A Model That Was Developed Was Regression Analysis To Valid The Study A Minimum Of 0.05 Level Of Significance Is Consider Very Important To Justice The Impact Of Interest Rate Change On The Profitability Of The Public Sector And Commercial Banks.

**Key Words:** Risk, Profitability, Interest Rate, Equity.

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### I. Banking Introduction:

A Bank Is A Financial Institution And Financial Intermediary That Accepts Deposits And Channels Those Deposits Turns Into Lending Activities, Either Directly Or Through Capital Markets. Bank Connects Customers That Have Capital Deficits To Customers With Capital Surpluses. Due To Their Critical Status Within The Financial System And The Economy Generally, Banks Are Highly Regulated In Most Of The Countries.

They Are Generally Subject To Minimum Capital Requirements Which Are Based On An International Set Of Capital Standards, Known As The Basel Accords. Banking In India Originated In The Last Decades Of The 18th Century. The First Banks Were The General Bank Of India, Which Started In 1786, And Bank Of Hindustan, Which Started In 1790; Both Are Now Defunct. The Oldest Bank In Existence In India Is The State Bank Of India, Which Originated In The Bank Of Calcutta In June 1806, Which Almost Immediately Became The Bank Of Bengal. This Was One Of The Three Presidency Banks, The Other Two Being The Bank Of Bombay And The Bank Of Madras, All Three Of Which Were Established Under Charters From The British East India Company. For Many Years The Presidency Banks Acted As Quasi-Central Banks, As Did Their Successors. The Three Banks Merged In 1921 To Form The Imperial Bank Of India, Which, Upon India's Independence, Became The State Bank Of India In 1955. Structure Of Indian Banking As Per Section 5(B) Of The Banking Regulation Act 1949: "Banking" Means The Accepting, For The Purpose Of Lending Or Investment, Of Deposits Of Money From The Public, Repayable On Demand Or Otherwise, And Withdrawal By Cheque, Draft, Order Or Otherwise." All Banks Which Are Included In The Second Schedule To The Reserve Bank Of India Act, 1934 Are Scheduled Banks. These Banks Comprise Scheduled Commercial Banks And Scheduled Cooperative Banks. Scheduled Commercial Banks In India Are Categorized Into Five Different Groups According To Their Ownership And / Or Nature Of Operation. Besides The Nationalized Banks

(Majority Equity Holding Is With The Government), The State Bank Of India (Sbi) (Majority Equity Holding Being With The Reserve Bank Of India) And The Associate Banks Of Sbi (Majority Holding Being With State Bank Of India), The Commercial Banks Comprise Foreign And Indian Private Banks. While The State Bank Of India And Its Associates, Nationalized Banks And Regional Rural Banks Are Constituted Under Respective Enactments Of The Parliament, The Private Sector Banks Are Banking Companies As Defined In The Banking Regulation Act. These Banks, Along With Regional Rural Banks, Constitute The Public Sector (State Owned) Banking System In India. The Public Sector Banks In India Are Back Bone Of The Indian Financial System. The Cooperative Credit Institutions Are Broadly Classified Into Urban Credit Cooperatives And Rural Credit Cooperatives. Scheduled Co-Operative Banks Consist Of Scheduled State Co-Operative Banks And Scheduled Urban Co-Operative Banks Regional Rural Banks (Rrb's) Are State Sponsored, Regionally Based And Rural Oriented Commercial Banks. The Government Of India Promulgated The Regional Rural Banks Ordinance On 26th September 1975, Which Was Later Replaced By The Regional Rural Bank Act 1976. The Preamble To The Act States The Objective To Develop Rural Economy By Providing Credit And Facilities For The Development Of Agriculture, Trade, Commerce, Industry And Other Productive Activities In The Rural Areas, Particularly To Small And Marginal Farmers, Agricultural Labourers, Artisans And Small Entrepreneurs.

The Reserve Bank Of India Is The Central Bank Of The Country. Central Banks Are A Relatively Recent Innovation And Most Central Banks, As We Know Them Today, Were Established Around The Early Twentieth Century.

The Reserve Bank Of India Was Set Up On The Basis Of The Recommendations Of The Hilton Young Commission. The Reserve Bank Of India Act, 1934 (Ii Of 1934) Provides The Statutory Basis Of The Functioning Of The Bank, Which Commenced Operations On April 1, 1935.

The Bank Was Constituted To

- Regulate The Issue Of Banknotes
  - Maintain Reserves With A View To Securing Monetary Stability.
- To Operate The Credit And Currency System Of The Country To Its Advantage.

## **II. Review Of Literature:**

Srivastava Shashi And Srivastava Divya (2010) In His Paper Found That The Banking Sector Has Played A Commendable Role In Fuelling And Sustaining Growth In The Economy. It Helps In Mobilizing The Nations Saving And In Channelizing Them Into High Investment Priorities And Better Utilization Of Available Resources. Modern Banking Is Something Different From Lending And Borrowing. They Accept Risk In Order To Earn Profits. In Doing So They Recognize That There Are Different Types Of Risk Such As Credit Risk, Operational Risk, Interest Rate Risk, Liquidity Risk, Price Risk, Foreign Exchange Risk, Etc. Out Of These Risks Interest Rate Risk Is The Most Prevalent Risk Which Refers To The Exposure Of A Bank's Financial Condition To Adverse Movements In Interest Rate. It Is The Risk To Earnings And Capital That If Market Rates Of Interest Changes Unfavourably. This Risk Arises From Differences In Timing Of Changes In Rates, The Timing Of Cash Flows (Reprising Risk), Changes In The Shape Of The Yield Curve (Yield Curve Risk) And Option Values Embedded In The Products (Options Risk). In Essence, The Market Value Of Banks Assets (I.E. Loans And Securities) Will Fall With Increase In Interest Rates. In Addition Earnings From Assets, Fees And The Cost Of Borrowed Funds Are Affected By Changes In Interest Rates.

Alfani<sup>1</sup> Lery, Rustandar<sup>2</sup> Irvan (2013), In His Research Found That, Banking Sector Existence Have Believed To Be A Stimulant To Wake Others While A Sector Companies From Another Sectors Effort To Survive And Increase The Benefits It Receives, A Banking Sector To Drive The Economy Beginning To Survive. In This Study, Globalization Of Banking That Is Reflected To The Surface As A Perfect Competition Between National Banking And Private Banking With Different Standard Operating Authority As A Leading Competition. It Is More Interesting To Observe The Bank Indonesia's Policy That Is Banking Deregulation About Implementer Banking Authority To Determine Interest Rates On Deposits And Ignorance Bank Indonesia Intervention On A Lending Private Banking To Improve Performance. Bassicly, A Banking Institution Should Have A Good Performance Which Can Be Maintained And Generate Maximum Profits. One Of The Factors That Affect The Amount Of Profit It Is The Soundness Of The Banks Themselves Through Their Financial Information .Banking Institutions Should Be Able To Define Strategic Actions To Achieve The Goal With An Excellent Performance. The Excellent Performance Of The Bank Is Expected To Regain Public Trust And Investor To Invest. On The Other Side The Performance Of The Bank Can Also Be Used As A Measure Of Bank Health, Healthy Banks Will Have The Support And Trust Of The Community And Be Able To Produce The Optimal Profit. The Level Of Corporate Profitability Including Banking Industry Is Affected By U.S. Dollar Exchange Rate And Inflation. It Is Indicating That Banking Industry In Indonesia Is Vulnerable To U.S. Dollar Exchange Rate Fluctuation, Especially For Banks That Still Have Not Made Anticipatory Measures Sufficient In The Face Of Changes In Circumstances And Economic Conditions.

Obamuyi Tomola Marshal (2013) In His Research Found That, Banks' Performance In Nigeria Over The Last Decade Remained Unimpressive. !E Profit Before Tax (Pbt) Of The Banks Structuated, Especially Between 2002 And 2005, And Has Declined Progressively Since 2008. For Instance, The Profit Before Tax Which Was 80.8% In 2000 Fell Dramatically And Recorded A Loss Of 13.95%. Although Pbt Peaked At 287.62% In 2007, It Nose-Dived To 49.14% In 2008 (See Obamuyi, 2012). !Is Implies That The Opportunities For Banks In Nigeria To Make Profits Are Gradually Reducing. !E Declining Profits Could Have Been Caused By The Global Economic Crises, The Festering Crises In The Banking Sector And The Fact That Some Of The Criteria Usually Employed To Measure The Performance Of The Banks Have Been Compromised By The Central Bank Of Nigeria (Obamuyi, 2011). As Olokoyo (2011) Argues, The Current Trend In Nigerian Banking And "Finance Sector Suggests That The Days Of Cheap Profits Are Now Over And Only Banks With Well Conceptualized Lending And Credit Administration Policies And Procedures Can Survive The Emerging Competition. !Us, Important Role Of Banks Arises Because, By Facilitating The Use Of External "Finance, They Assist In Reconciling The "Financial Interest Of The Deflicit Economic Units, Which Invest More Than They Save, With Those Of The Surplus Economic Units, Which Save More Than They Invest (Ojo, 2010), Thereby Generating Reasonable Income In The Process. Although The Monetary Authorities Have Taken Some Measures (Such As Banks' Consolidation, Review Of Prudential Guidelines And Bail-Out Strategy) To Stabilize The "Financial System And Build Confidence In The Banking System, It Is Still Germane To Know What Factors Affect Banks Profitability In Order To Influence Policy Making In The Banking Sector In Nigeria. Us, The Study Investigates The Effects Of Capital, Size, Expenses Management And Economic Condition On Banks' Profitability In Nigeria. It Is Hereby Hypothesized That, 'There Exists A Significant Relationship Between Banks' Profitability And Each Of The Banks' Capital, Size, Expenses Management And Economic Condition In Nigeria. !E Study Becomes Relevant Because It Will Invoke The Attention Of The Policy Makers And The Bank Management To Pursue Policies That Have Long Lasting Positive Implications On The Entire Banking System In Nigeria.

Nahang1 Fatemeh , Ahlil Araghi2 Maryam (2013), In His Article Stressed The Fact That, Banks As Intermediaries Of Money Resources Besides Other Institutions Like Investment Stock Market And Insurance Are Considered As The Main Pillars Of Financial Markets. Bank. Banks By Contraction And Expansion Of Credits And Redirect Funds From Part To Part, Aside From Helping To Stabilize The Economy At The Large Level, Have An Important Role In The Regulation Of The Economy. Due To The Lack Of Necessary Development Of Capital Market In Economy Of Iran, Banking Is More Important And In Practice These Are The Banks Which Are Responsible For Long-Term Financing Today Banks Offer A Variety Of Services To Its Clients, Including Deposits, Granting Loans And New Services That Are Offered Through The World Wide Web. Increasing Efficiency And Providing A Variety Of Services In The Minimum Of Time Are Some Of The Expectation Which Banking Network Always Had Faced In This Regard The Initiate Action Such As Shetab Plan (Interbank Information Network) And Electronic Banking In The Country's Banking System Has Been Designed And Implemented. Banking System Through Directing Resources To Manufacturing And Service Sectors, To Fulfil Their Social Responsibility Can Create Production; Employment And Economic Growth In The Country .The Field Of Activity In Banking Are Divided Into Three Parts Resource Mobilization, Allocation Of Resources And Services. Thus Identification Of Banks Performance In The Implementation Of Each Of Its Tasks Can Present A Range Of Strengths And Weaknesses In Banks. Since Banks Just Like The Other Firms Seek Economic Profitability To Achieve This Important Goal, It Is Necessary To Identify Effective Variables The Basic Goal Of Any Business And Economic Bank Is Profitability.

Mashamba Tafirei, Magweva Rabson (2014) , In His Research Found That, Lack Of Confidence In The Aftermath Of The 2003/4 Domestic Banking Crisis That Claimed Big Players Like Trust Bank, Time Bank And Royal Bank, Has Often Been Sighted As The Driving Force Behind A Crippling Depositor Fatigue That Has Ravaged Banks. Recently, In July 2012 For The Second Time Royal Bank Surrendered Its Licence Amid Revelations That The Bank Had Been Involved In Serious Abuse Of Depositors' Funds And Was Burdened By Non-Performing Insider Loans Among A Cocktail Of Operational Irregularities. The Bank's Closure Fell Hard On The Heels Of Interfin Bank's Placement Under Curatorship And Genesis Investment Bank Voluntary Surrender Of Its Banking Licence After Failing To Meet Minimum Capital Thresholds. This Has Driven Most Individuals To Prefer Home Based Savings To Banks. The Finscope 2011 Zimbabwean Survey Concur That 27% Of Zimbabweans Save At Home. Moreso, Unofficial Statistics Predict That An Estimated \$3 Billion Is Circulating Outside The Formal Banking System. Notwithstanding Significant Strides Made In Stabilizing The Economy, The Multiple Currency Era Has Been Epitomized By Transitory Deposits In The Banking Sector, Short Term Loans, Market Illiquidity And Lack Of Money Market Instruments.

Ahmad Khan Waseem (2014) , He Found In His Research That Banking Sector Of Pakistan Has Revealed Massive Growth And Potential Over The Years. There Is A Considerable Expansion In The Profitability Of Banking Sector Demonstrated By Performance And Stability Indicators. From 2008 After The Massive Growth, The Banking Sector Of Pakistan Is Facing Some Pressures Like Liquidity And Solvency Problems Which Have Considerable Impact On The Performance Of Banking Sector And Financial System. If

The Financial Institutions Have Enough Amount Of Liquidity To Respond To Their Obligations Then They Can Manage The Situation Easily. As Banks Are Operating In Very Competitive Environment, It Has Become Obligatory To Pay Handsome Rates To Depositors To Attract Liquidity. To Ease The Liquidity In The Market State Bank Of Pakistan Has Decreased The Cash Reserve Requirement (Crr) And Statutory Liquidity Requirement (Slr) On Demand And Time Liabilities. Instead Of Developing Its Own Recourses The Government Allows The Banks To Generate Money And Subsequently Take Loan From The Banks. The Huge Amount Of Government Borrowing From Banks Is Shocking For The Economy. The Government Not Only Should Limit Its Borrowings From Banks As Well As Place Some Type Of Check On Control Of Money. To Make Banking System Stable Requires Stable Macroeconomic Environment Which Adds To Efficient And Effective Growth Of Savings And Investment Decision. The Performance Of Banking System Particularly In The Areas Of Monetary Policy, Transparent Fiscal Policy And Financial Stabilization Should Be Supported By Macroeconomic Measures. State Bank Of Pakistan Plays An Important Role In The Efficient And Effective Growth Of Economy By Providing Guidelines To The Financial Institutions Thus Facilitating The Investors And Mobilizing The Resources Of The Economy For Development In The Country.

Ponniah V.M, Shenbagavalli R. (2014), In His Article Stressed About The Banking Industry Had Shown A Tremendous Growth For The Last Decade. The Reason For The Consistent Growth Was Our Strong Regulatory Framework, Diversified Channels Of Technology, Strong Customer Base, And A Growing Economy. The Environment Was Well Fueled With Factors Like Positive Demographic Dividend, Higher Investment In Infrastructure, Technology And Other Regulatory Policies. The Growth Phase Of The Industry Has More Challenges To Face During 2013 Such As Overall Slowdown Of The Economy Impacting On The Credit Growth, Weakening Asset Quality And Rising Npas, Basel Iii Implementation Are The Lingering Issues. The Strong Supervision Of Reserve Bank Of India Has Always Helped In Strengthening The Banking Economy To Comfortably Handle The Challenges Phrased Before Them. The Prime Objective Of The Banks Is To Maximize The Profitability With Sound Liquidity For Which They Have To Manage And Monitor The Asset And Liability Portfolio In An Efficient Manner By Considering The Various Risk Factors Involved In Such Management. The Balance Sheet Exposes The Banks To Two Types Of Risk Which Is Liquidity Risk And Interest Rate Risk (Irr). The Irr Is The Exposure Of A Bank's Financial Condition To Adverse Movements In Interest Rates. Accepting This Risk Is A Normal Part Of Banking And Can Be An Important Source Of Profitability And Shareholder Value. However, Excessive Irr Can Pose A Significant Threat To A Bank's Earnings And Capital Base. Changes In Interest Rates Affect A Bank's Earnings By Changing Its Net Interest Income And The Level Of Other Interest-Sensitive Income And Operating Expenses. Changes In Interest Rates Also Affect The Underlying Value Of The Bank's Assets, Liabilities And Off-Balance Sheet Instruments Because The Present Value Of Future Cash Flows (And In Some Cases, The Cash Flows Themselves) Change When Interest Rates Change.

Ojeaga Paul (2014), Has Found In The Research Conducted That The Dynamics Between Interest Rate And Customer Savings Behavior Has Not Been Overly Researched. While The Topic Has Generated A Lot Of Discussions, No Conclusive Agreement Has Been Reached As To The Nature Of How Interest Rates Is Likely To Affect Customer Savings Behavior Particularly In The Nigerian Context, Furthermore Even If Many Studies Have Investigated The Role Of Interest Rate On Savings Within The Growth And Financial Business Cycle Context Few Have Tried To Address Customers Savings Concerns As A Matter Of Primary Interest Using A Non Parametric Estimation Technique As We Do In This Study. A Host Of Factors Are Likely To Affect Customer Saving Behavior In Banks, Some Include The Fixed Saving Interest Rates Which Is Likely To Affect Customers Incentive To Save, Country Specific Wage Rates Which Will Depict The Average Allowance Available After The Individual Budget Demands, Aggregate Average Annual Bank Losses Which Is Likely To Affect Customer Perception Of How Well Banks Are Doing, Institutional And Regulatory Strength Which Depicts The Level Of Oversight Function And Internal Control Effectiveness, Average Bank Lending, And Country Specific Monetary Policy As Exerted By The Country's Apex Financial Agency Such As The Central Bank.

Faizaan Malik<sup>1</sup> Muhammad, Shehzad Khan<sup>1</sup>, Ibrahim Khan<sup>1</sup> Muhammad, Khan<sup>2</sup> Faisal. (2014), Their Research Talks About The Fact That, Interest Is Considered To Be Very Phenomenal Factor In Financial Market. In Today's Market Of Liberalization, The Worldwide Financial Markets Have Led To Enhance The Volatility In The Global Economy. Consequently A Numerous Researchers, Practitioners And Policy Makers Have Keen Interest In The Impact Of Bank Profitability And Rate Fluctuations. The Evaluation Of Trade Off Among The Stability Of The Market Rate Of Interest And Policies Becomes More Expected. Beside This Type Of Evaluation, Different Policies Makers Would Be Able To Put Suitable Weight Of The Interest Rate Strategies, With Other Links. As A Result, The Discussed Paper Examines The Interest Rate Effect On Bank's Profitability In The Pakistan Banking Sector By Using Regression Technique (2008-2012). The Increased Volatility Of The Company's Market Interest Rate Is Caused By The Changed In Unexpected Interest Rate And Is The Major Contributor In Financial Market. According To English (2002), To Measure The Effect Of Changes In Bank's Profitability, It Is Mandatory To Evaluate And Asses The Overall Fluctuations Of Interest

Rate On The Economy And To Depict The Implications Of Interest Rate On Cash Flow. The Study Conducted To Check And Examine The Market Interest Rate Effect On The Bank's Profitability In Public And Private Sectors Of Pakistan. For The Better Understanding Of Effects, The Sample Was Divided Into Two Categories. 1) Public Sector Banks: Comprises Of Four Nationalized Banks And 2) Private Sector Banks: Contains Six Private Sector Banks For The Study. The Islamic Banks Were Not Included In The Sample. Bank Lending Rates Were Taken As A Proxy For Interest Rate While Return On Assets (Roa) And Return On Equity (Roe) Were Taken As A Profitability Of The Banks. The Regression Model Was Used In The Study To Witness The Effects Of Interest Rate On Profitability. The Results Show That The Interest Rate Has More Effects On Both Roa And Roe In Private Banks As Compared To The Public Sector Banks.

Frederick Nsambu (2015), In His Research Found That The Reforms Restructured The Banking Industry In Regard To Advances In Computer Technology, That Led To Electronic And Internet Based Banking. Consequently, There Are Changes In Internal Bank Operations; Relationships With Customers And Inter-Bank Interactions. These Improvements Caused Repercussions On The Costs And Revenue Of Commercial Banks And Ultimately Performance Differences Between Domestic And Foreign Commercial Banks. The Consequence, Among Others, Included The Closure Of Several Commercial Banks In Uganda (Appendix A1). The Results Of Banking Sector Reforms Suggest Mixed Outcomes. Whereas There Was Impressive Improvement For Banking System As A Whole, The Performance Of Foreign Commercial Banks Remained Quite Steady And Even Improved While Domestic Commercial Banks Suffered Massive Decline In Their Profitability And Accumulated More Non-Performing Loans (Mpuga, 2002). The Decline Became A Source Of Anxiety As Domestic Commercial Banks Are Performing Relatively Poorly Compared To Foreign Commercial Banks.

Overview Of Banking Industry In Uganda: Uganda's Banking Sector Has Developed Since 1906, When National Bank Of India Which Later Became Grindlays Bank Was Established (Bategeka And Okumu, 2010). However, Prior To Independence In 1962, The Banking Sector In Uganda Was Dominated By Foreign Owned Commercial Banks (Beck And Hesse, 2006). In 1966, Bank Of Uganda Became The Central Bank, Controlling All Currency Issues And Foreign Exchange Management (Mutibwa, 2013). With The Establishment Of Uganda Commercial Banks And Uganda Development Bank In 1972, State-Owned Banks Dominated The Banking Sector, On Top Of East African Development Bank Which Was Established In 1967 (Bategeka And Okumu, 2010).

Abid S Fatima, Co Author: Lodhi Samreen (2015), Their Research Found That The Banking Industry In Pakistan Has Grown Rapidly During The Last Decade And Beyond Becoming Much More Competitive, Flexible And Profitable. It Is Further Expected To Continue Enjoying These Trends And Has Promising Future Prospects. However, Its Sustainability Of Performance Is Dependent Upon Continued Macroeconomic Stability, Stronger Vigilance On The Industry To Make Sure Effective Compliance Of Industry With The Prudential Regulatory And Supervisory Framework. Since 2008 After The Rapid Growth, The Industry Is Facing Issues Like Liquidity And Solvency Problems Which Have Considerable Effect On Its Performance. Today, The Banking Sector Of Pakistan Is Playing Pivotal Role In The Growth Of Country's Economy. Besides, State Bank Of Pakistan (Sbp) Has Been Using Cash Reserve Requirement (Crr) Since Its Inception And Often Along With The Changes In Monetary Policy Stance To Reinforce Its Transmission. The Crr Has Also Been Used To Supplement Or Substitute Open Market Operations (I.E. Liquidity Management Function Of Rr). Reserve Requirement Ratio Is The Minimal Percentage Of Deposits To Be Kept Up With Central Bank By The Banks. It Is One Of The Tools Of Monetary Policy Used To Control Money Supply In The Economy. Any Changes Made In Crr Or Slr Affects The Availability Of Money With The Bank For Credit In The System Thereby Influencing The Money Supply In The Economy. Whenever Crr Is Increased, It Acts As A Tax On Bank Deposits.

Martha Obillo Amollo (2015) , The Research Conducted By Him Revealed That The Profitability Measures The Firm's Ability To Generate Revenue In Excess Of Expense An Accomplishment That Is Necessary If The Firm Is To Be Considered A Going Concern Coleman (2007). Therefore The Indicators Of The Profitability Is The Profits Made By The Business , The Growth And Expansion, Cost Of The Operation Incurred And Demand For Goods And Services Excess Of Return Over Cost Economies Of Scale Market Power And Cost Control. The Pace Of Change From A High-Transaction Cost, Centrally Planned Economy, To A Lowtransaction Cost, Market-Oriented Economy, Involves A Complex Process Of Adjustment To Efficient Rules. In An Analysis Of The Portfolio Mechanism Of Money Growth And Capital Formation, An Increase In The Rate Of Inflation Would Lower The Rate Of Return Of Fiat Money Relative To That Of Capital, Thereby Increasing Capital And Increasing Real Output. The Seminal Works Of Mckinnon And Shaw, (1973), Argue That High Real Interest Rates Tend To Encourage Savings, Whilst Savings Determine Investment. Lending Rates Liberalization And Low Inflation Can Therefore Promote Capital Accumulation And Economic Growth In Less Developed Countries. Many Commercial Banks Have Increased Their Holdings Of Long-Term Assets And Liabilities, Whose Values Are More Sensitive To Rate Changes. Such Changes Mean That Managing Lending Interest Rate Risk Is Far More Important And Complex Than It Was Just A Decade Ago. The Nature Of A Bank's Business Activities And Overall Levels Of Risk Should Determine How Sophisticated Its

Management Of Interest Should Be. Every Well Managed Bank, However, Will Have A Process That Enables Bank Management To Identify, Measure, Monitor, And Control Interest Risk In A Timely Manner.

**Profitability:**

Profitability Is The Ability Of A Business To Earn A Profit. A Profit Is What Is Left Of The Revenue A Business Generates After It Pays All Expenses Directly Related To The Generation Of The Revenue, Such As Producing A Product, And Other Expenses Related To The Conduct Of The Business Activities.

$$\text{Profitability} = \frac{\text{Profit}}{\text{Revenue}}$$

Profitability Is Defined As The Potential Of A Company To Exceed Its Overall Revenue From Its Total Expenses Which Results In Profit Generation. A Business Must Achieve Profitability In Order To Sustain Its Operations. It Is Impossible To Imagine A Business Without Profitability. Profitability Measures The Efficiency Of The Company. Profitability Differs From Profit. Profit Has A Currency Unit To Measure While Profitability Is Generally Measured As A Ratio Of Profit To Revenue. There Are Other Ratios That Can Be Used To Determine Profitability. Some Of These Ratios Are Return Of Assets (Roa), Return On Equity (Roe), Earnings Per Share (Eps), And Dividend Per Share (Dps) Etc. There Are Two Kinds Of Measuring Profitability. It Can Be Either In Terms Of Accounting Profits Or In The Form Of Economic Profit.

**Return On Assets (Roa).**

Return On Assets Measures A Company's Ability To Turn Assets Into Profit. (This May Sound Similar To The Total Assets Turnover Ratio Discussed Earlier, But Total Assets Turnover Measures How Effectively A Company's Assets Generate Revenue.)

$$\text{Return On Assets} = (\text{Net Income} + \text{After Tax Interest Expense}) / (\text{Average Total Assets}).$$

**Return On Equity (Roe):**

Return On Equity Is A Straightforward Ratio That Measures A Company's Return On Its Investment By Shareholders. Like All Of The Profitability Ratios We've Discussed, It Is Usually Stated In Percentage Terms, And Higher Is Better.

$$\text{Return On Equity} = (\text{Net Income}) / (\text{Average Shareholders' Equity}).$$

**Return On Capital Employed (Rce):**

Return On Capital Employed Or Rce Is A Profitability Ratio That Measures How Efficiently A Company Can Generate Profits From Its Capital Employed By Comparing Net Operating Profit To Capital Employed. In Other Words, Return On Capital Employed Shows Investors How Many Dollars In Profits Each Dollar Of Capital Employed Generates.

$$\text{Return On Capital Employed: Net Operating Profit/Total Assets-Current Liabilities}$$

Methodology Is The Systematic, Theoretical Analysis Of The Methods Applied To A Field Of Study. Typically, It Encompasses Concepts Such As Paradigm, Theoretical Model, Phases And Quantitative Or Qualitative Techniques.

### **III. Research Methodology:**

**Meaning Of Research:**

Research Methodology Is A Way To Find Out The Result Of A Given Problem On A Specific Matter Or Problem That Is Also Referred As Research Problem. In Methodology, Researcher Uses Different Criteria For Solving/Searching The Given Research Problem. Different Sources Use Different Type Of Methods For Solving The Problem.

**Definition Of Research:**

Research Comprises “Creative Work Undertaken On A Systematic Basis In Order To Increase The Stock Of Knowledge, Including Knowledge Of Man, Culture And Society, And The Use Of This Stock Of Knowledge To Devise New Applications.”

**Objectives Of The Research Methodology:**

1. To Calculated Interest Rates Determining By Reserve Bank Of India On Quarterly Basics And Converting It On Annual Basis.

2. As Nationalized Have Opened Its Door's By Floating The Shares In The Stock Market, Its Important To Know Higher The Return On Equity More Will Be The Equity Price In The Stock Market.
3. When The Banking Industry Is Diverting Its Huge Resources In The Form Of Capital On Different Projects Of Banking Industry There Should Be Substitutional Amount Of Profit.

#### **IV. Research Gap:**

A Gap In The Literature Is A Research Question Relevant To A Given Domain That Has Not Been Answered Adequately Or At All In Existing Peer-Reviewed Scholarship. A Gap In The Literature May Emerge If: The Question Has Not Been Addressed In A Given Domain, Although It May Have Been Answered In A Similar Or Related Area. The Review Of Literature Of Past Studies Reveal That The Researches Have Studied The Impact Of Interest Rates On Bank Deposits, Lending Interest Rate, Inflation On Profitability, Momentary Policy, Derivatives Overall Profitability Of European Banks, Factors Affecting Developing Economy, Internal Factors, The Relationship Of Interest And Mobilization, Impact Of Reverse Requirement Etc.... This Study Is An Attempt To Find Out Impact Of Interest Rate As An Independent Variable On Dependent Variable Like Profitability Constituents Like Return On Assets, Return On Capital Employed, Return On Equity.

#### **Sample Size:**

30 Years Financial Data Is Collected From Cmie Reports Considered To Be The Sample Size For Testing The Data By Calculating The Values To Arrive At The Level Of Significance.

#### **Source Of Data:**

The Study Is Based Mainly On Secondary Source Of Data Relating To The Study Was Obtained From The Annual Reports Of The Companies. In Addition, Magazines, Journals, Websites, Were Also Referred For Designing Methodology For The Study.

#### **Sample Of The Study:**

18 Commercial Banks Are Selected For The Study Irrespective Of Their Size To See To What Is The Effectiveness Of Interest Rates Changes On Profitability Of Banking Sector In India.

#### **Variables:**

Interest Rates Are The Independent Variables And Return On Assets, Return On Capital Employed, Return On Equity Are The Dependent Variables.

#### **Hypothesis:**

- H1. The Interest Rate Has A Significant Effect On Return On Assets Of The Bank.
- H2. The Interest Rate Has A Significant Effect On Return On Capital Employed Of The Bank.
- H3. The Interest Rate Has A Significant Effect On Return On Equity Of The Bank.

#### **Significance Of The Study:**

There Are Various Issues In Banking Sector Which Influences The Efficiency Of The Banking Sector. In The Present Study The Independent Variable Is Interest Rate And The Study Is Its Impact On The Profitability Of The Commercial Banks In India. The Findings Of The Study Can Be Taken As The Guidelines To Curb The Falling Profitability Performances Of The Commercial Banks India.

#### **Limitations Of The Study:**

The Present Study Were The Impact Of Interest Rate On Profitability Is Under Taking Though Have Some Outcome Suffers From Certain Limitation. Availability Of Information Is A Major Setback In Doing Any Research Work. Further, Availability Of Data, Limitation Of Time, Consistence With The Resources As Some Of The Major Our Circular In During Empirical Study.

**Table -1: Roa (Return On Assests):**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	(Constant)	2.330	.864	2.696	.012
	Interestrates	-.219	.108	-.370	.052

a. Dependent Variable: ROA

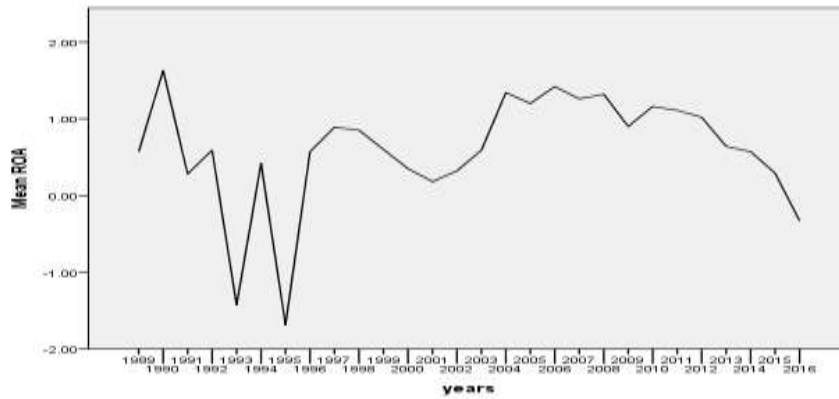


Fig: 1

The Present Analysis Of The Study Is Begin To Valid The Hypothesis That Is Return On Assets. In Hypothesis The Dependent Variable Is Return On Assets And Independent Variable Is Interest Rates Are Taken. The Alternative Hypothesis Satisfies Outcome Of The Regression And The Coefficient Is Very Well Within The Significance Level Of 0.05 Which Means The Alternative Hypothesis One Is Accepted And Rejected Null Hypothesis.

**Interpretation:**

The Study Makes It Very Clear The First Group Of 7 Banks Were Alternative Hypothesis Is Accepted Are Doing Well And Maintain A Good Outcome Of Return On Assets But In Case Of 11 Other Banks The Alternative Is Rejected It Means The Bank Have To Make The Measure To Improve The Performance.

**Table -2: Rce(Return On Capital Employed):  
Coefficientsa**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	24.718	6.344		3.896	.001
	Interestrates	-2.113	.791	-.464	-2.670	.013

a. Dependent Variable: RCE

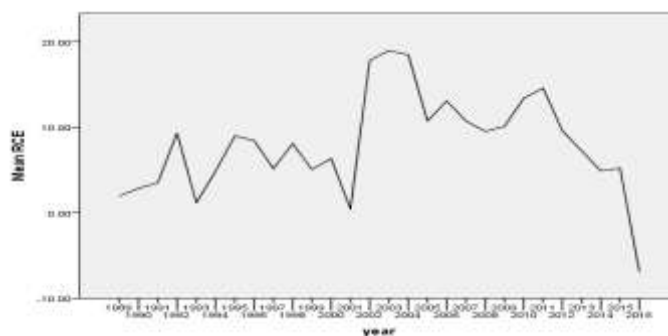


Figure -2

The Present Analysis Of The Study Is Begin To Valid The Hypothesis That Is Return On Capital Employed. In Hypothesis The Dependent Variable Is Return On Capital Employed And Independent Variable Is Interest Rates Are Taken. The Alternative Hypothesis Satisfies Outcome Of The Regression And The Coefficient Is Very Well Within The Significance Level Of 0.05 Which Means The Alternative Hypothesis One Is Accepted And Null Hypothesis.

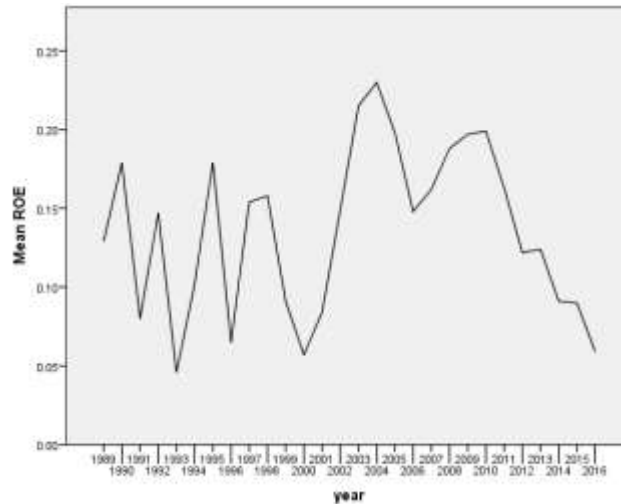
The Study Makes It Very Clear The First Group Of 7 Banks Were Alternative Hypothesis Is Accepted Are Doing Good And Maintain A Good Outcome Of Return On Assets But In Case Of 11 Other Banks The Alternative Is Rejected It Means The Bank Have To Make The Measure To Improve The Performance.



**Table -3: Roe (Return On Equity):  
Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.311	.055		5.686	.000
	Interest Rates	-.022	.007	-.536	-3.240	.003

a. Dependent Variable: ROE



**Fig:3**

The Present Analysis Of The Study Is Begin To Valid The Hypothesis That Is Return On Equity. In Hypothesis The Dependent Variable Is Return On Equity And Independent Variable Is Interest Rates Are Taken. The Alternative Hypothesis Satisfies Outcome Of The Regression And The Coefficient Is Very Well Within The Significance Level Of 0.05 Which Means The Alternative Hypothesis One Is Accepted And Null Hypothesis.

The Study Makes It Very Clear The First Group Of 3 Banks Were Alternative Hypothesis Is Accepted Are Doing Good And Maintain A Good Outcome Of Return On Equity But In Case Of 15 Other Banks The Alternative Is Rejected It Means The Bank Have To Make The Measure To Improve The Performance.

**V. Findings:**

The Banking Industry Is The Most Vibrant Sector Of Indian Economy. Banks Have Been Operating Since Pre Independence And Post-Independence. Soon After The Nationalisation, Banking Industry Has Been Discharging Many Political, Social And Economic Issues To Make Financial Condition Very Strong. The Present Study Is On Outcome Of An Approach To Know The Effect Of Interest Rate Changes On Profitability Of Banks. The Sample Collected Is Convenient In Nature Because The Total Public Sector Banks Are Taken To Be The Sample Size. As Many As 3 Hypotheses Were Taken On The Basis Of Research Gap Found And Objectives Designed. Financial Statements Of 30 Years Of 19 Commercial Banks Were Collected From Cmie Reports, And To Test The Data Linear Regression Model Was Used. The Results During The Period Of The Study Supported In Case Of Some Years And Didn't Support In Case Of Some Years At 0.05% Level Of Significance.

It Cannot Be Presumed That Banks Are Not Performing Well If Hypothesis Is Accepted Or Rejected. There Are Multiple Reasons Which Have Direct Impact On The Changes Of Interest Rates And Its Impact On Profitability Of The Banking Industry. The Imbalances In The Performance Can Be Reduced To A Minimum Level By Taking Corrective Steps. Since Economic Conditions Are Changing In Nature Due To Several Factors. The Study Is Only A Small Attempt To Know In Certain Issues Relating To The Performance Of Banking Industries.

**VI. Further Study:**

Developing The New Methodology And Obtain The New Objectives And The Creating The Hypothesis. In Further As A Reference Of My Project They Can Create The New Formulae And Based On That They Can Collect The Data, And They Have To Identify The Independent Variables And The Dependent Variables Based On The Hypothesis And After The Calculation They Can Do Analysis Based On The Results And The Table Value. And The Interpretation Is Written Based On The Analysis And The Graphs.

## VII. Conclusion:

The Regression Result For Commercial Banks Shows That The Interest Rate Has Significant Effects On The Profitability (Roa) In The Commercial Banks (Alternate Accepted). The Value Of 0.05 Level Of Significance Shows That In Case Of Commercial Banks The Interest Rate Affects The Profitability (Roa) About 60 Percent. In The Case Of Return On Equity (Roe) In Commercial Banks The Interest Rate Has Significant Effects On Profitability (Alternate Accepted). But In Case Of Roe The Interest Rate Only Affect 60 Percent The Profitability. In The Case Of Return On Equity (Rce) In Commercial Banks, The Interest Rate Has Significant Effects On Profitability (Alternate Accepted). But In Case Of Roe The Interest Rate Only Affect 30 Percent The Profitability.

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